

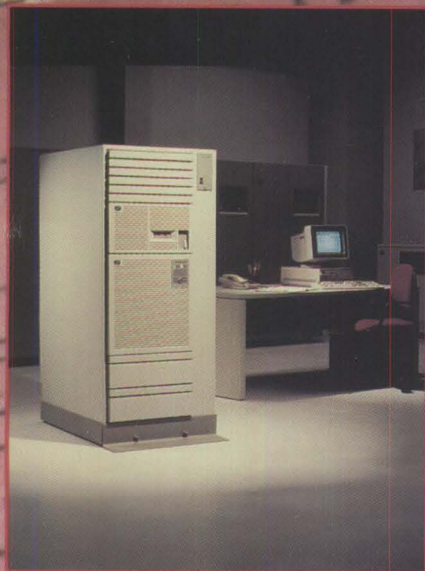
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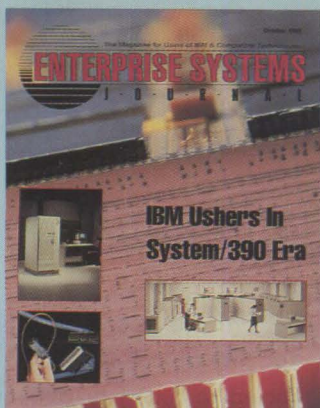
The Magazine for Users of IBM & Compatible Technologies

ENTERPRISE SYSTEMS

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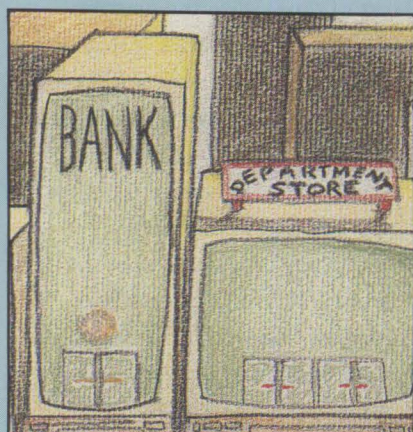
IBM Ushers In System/390 Era



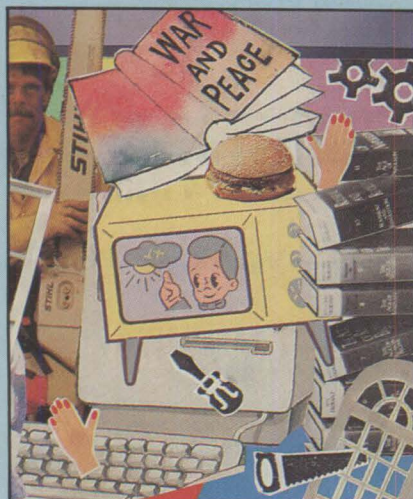


COVER:

IBM's latest announcement ushers in a new era with System/390. Included in the announcement is a broad spectrum of product options such as the Enterprise System/9000 (ES/9000) family of processors and Enterprise Systems Connection Architecture (ESCON) using fiber optic channels (see article page 10). Cover photography courtesy of IBM.



Expert Systems/Data Management **106**



ISPF Goes Micro With SCLM **44**

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Bob Thomas

MAINFRAME JOURNAL Becomes ENTERPRISE SYSTEMS JOURNAL

When trying to stay on top of the technological side of the computer industry, it is best to keep in mind that change is inevitable. A ship sails in the same direction only until the wind shifts. Change happens!

On September 5, 1990, IBM made the most significant announcement in its history by introducing System/390 (see related articles on pages 10 and 140). The System/390 announcement includes literally hundreds of individual hardware and software products such as: the Enterprise System (ES)/9000 family of processors; extended capabilities for the three Enterprise Systems Architecture (ESA) operating systems — MVS, VSE and VM; and Enterprise Systems Connection Architecture (ESCON), the new high-speed fiber optic channel.

Just as IBM has changed, so too must *MAINFRAME JOURNAL*. As the leading publication among IS professionals using IBM mainframe systems, it is imperative that the focus and direction of the magazine parallel that of IBM and its users. Thus, its new name is *ENTERPRISE SYSTEMS JOURNAL* and is intended to reflect a broader editorial coverage to include all activities within the IS technology infrastructure, focusing entirely on IBM and compatible technologies.

Change is difficult for everyone and no less so for us here. After building up strong name identification with *MAINFRAME JOURNAL*, it was tough to switch names just as the magazine was gaining a prominent international presence and a circulation approaching 100,000 subscribers. To test the waters, I made several phone calls and visits to subscribers, advertisers and to a high-level source at IBM. My question was simple: "In light of IBM's stated direction, should we change the name of *MAINFRAME JOURNAL*?" Every individual contacted said the name change to *ENTERPRISE SYSTEMS JOURNAL* was an excellent idea and virtually mandated by IBM's recent announcements. Some were skeptical initially until they learned what the new name would be.

Your support of *MAINFRAME JOURNAL* has been tremendous since its inception almost five years ago. The cards and letters we have received offering suggestions, comments and encouragement are each prized. I hope you will continue to find *ENTERPRISE SYSTEMS JOURNAL* useful and interesting as together we move forward in a new, broader direction.



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ISPF Goes Micro With SCLM On The PC

The Workstation
Platform For OS/2

By Jon E. Pearkins

The biggest addition to ISPF Version 3 was the Software Configuration and Library Manager (SCLM). ISPF Version 3.2 also includes the Workstation Platform for OS/2, a movement of SCLM function and management to the workstation, allowing coordinated development of software on both the MVS or VM host and the OS/2-based microcomputer.

Although SCLM and Workstation Platform for OS/2 are part of AD/Cycle, they provide excellent automated change management on a stand-alone basis with or without any other AD/Cycle components. Emphasis is on the word *automated*, since they take the busywork out of change control.

Required Components

All of the mainframe components to make the Workstation Platform for OS/2 work come with ISPF/PDF Version 3.2 and require no separate orders or coding of feature numbers. That certainly simplifies the installation side of things, but pricing is an entirely different matter. The Workstation Platform for OS/2 has an IBM part number of 53F6285 and a price of around \$200 per copy (one for each workstation).

Although the requirements state a need for a PS/2 Model 70 or larger with at least 8MB of memory and 40MB of hard drive, the Workstation Platform for OS/2 has been tested on machines as small as a PC/AT. If productivity is a major concern, the best advice is to stick with an 80386-based machine with a respectable amount of memory.

OS/2 Extended Edition (EE) Version 1.2 is a true requirement, along with the Communications Manager (in DFT mode) and a file transfer program like the 3270/PC File Transfer program (IBM program number 5665-311). The CPU speed, memory and hard disk capacity quoted above are OS/2 EE 1.2 requirements; the Workstation Platform for OS/2 itself uses only 3MB of hard disk for program and



control data storage and no additional main memory.

Even though there is a menu item called Edit, the Workstation Platform for OS/2 does *not* come with its own editor. Unlike SCLM, it does not even come with a shell for any existing editor. All this means that users are going to have to make do with the OS/2 System Editor or any other editor they may have already purchased for their particular workstation. This is a point to be aware of, since programmers spend a great deal of their lives using an editor and are not going to find the ISPF Editor they know and love on their workstation.

SCLM is already available for MVS with general release for VM scheduled for March 1991.

Library List

Library List is the developer's "window to the world" from his workstation to SCLM on the host. Meant to be the single end-user interface to the mainframe, Library List can also be tailored to invoke other tools using the System Applications Architecture/Common User Access (SAA/CUA) *object/action* approach. The tool to be invoked can reside on the mainframe or the workstation; the developer need not be aware of where the tool is to invoke it.

Library List, as delivered without any tailoring, provides two functions:

- Accesses SCLM-controlled members whether they reside on the mainframe or the workstation
- Invokes mainframe SCLM functions like BUILD and PROMOTE.

But Library List does not have an ISPF/PDF appearance nor does any other part of the Workstation Platform for OS/2. Instead, IBM has taken a microcomputer approach: the state-of-the-art SAA CUA approach of icons, action bars, pull-down menus, pretty

colors and one-letter fast paths with which OS/2 and Windows users are already familiar.

To avoid the confusion of different end-user interfaces on mainframe and micro or, more accurately, on 3270 terminals versus Programmable Workstations (PWSes), everything is done invisibly so the user does not actually see the mainframe. Whenever Library List needs information from the mainframe, it obtains it seamlessly. All the programmer sees is the end-user interface on the workstation.

Member Lists

For example, when the request is for a member list to be displayed, the user sees it in a scrollable window on the screen with member name, type, status and any relevant messages pertaining to individual members. The display is neither the typical member list of ISPF/PDF's edit, browse, library or data set list options, nor is it cluttered with information relating to OS/2's file structure.

Library List presents the SCLM members in SCLM terms. As such, the default member list provides four pieces of information:

- Member name – the usual eight-character MVS Partitioned Data Set (PDS)

member name or VM filename

- Type – typically the programming language since users would normally be modifying or creating source code
- Status – HOST indicates the member is on the mainframe; LOCAL indicates it is on a workstation under the control of a developer — the user requesting this display or someone else using the Workstation Platform for OS/2
- Message – indicates the user's last action on the member, typically check-in or check-out.

When installed, Library List creates member lists in member name order. Alternatively, using the *view* option, the user can resort the member list by type, change date or some other field. The *view* suboption *change columns* allows the user to change what information is displayed in the member list and the order in which the columns of information are displayed. No matter what the user chooses, however, access to all other information about a member is provided through the *file* suboption *show details*. Using *options*, the desired member sort sequence and columns of information display can be set as the default on an individual user basis.

Suboption *include* lets the user specify a filter list that will display only members whose names fit a pattern. Since other people may be using the same library at the same time, the suboption *refresh* allows the user to request that Library List go back to the mainframe for an updated member list.

Because Library List is built on the windows environment of OS/2, the user can have multiple member lists open simultaneously, each in its own window.

Check-Out

The term *check-out* is used to describe the process of acquiring a component from the mainframe for change directly on the workstation. As with SCLM, where it is called *drawdown and lockout*, check-out implies that only the current user now controls the component. SCLM and other copies of Workstation Platform for OS/2 running on other workstations cannot modify it until the user has done a *check-in*, transferring control and the new copy of the component back to SCLM on the host. In addition to locking the component, SCLM also keeps track of where it is, in case the project leader should grow curious in six months when the user

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SPF/2 is compatible with OS/2 Standard and Extended Editions Version 1.2 or later. However, Standard Edition users will not be able to access the macro capabilities due to the unavailability of REXX in that environment.

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has forgotten to check it back in.

It is important to realize that check-in and check-out imply transfer of the contents of the actual member between the mainframe and the workstation. Obviously, for integrity reasons, the mainframe copy is not erased, but it is locked from other use. Users with slow communications lines from their workstations to the host or with some large members to transfer will notice that considerable time passes during the transfer process.

Check-in and check-out is done on a member-by-member basis. But when a member is to be checked-in or checked-out, the user is not restricted to selecting a single member at a time. Library List allows selection of as many members as needed from a member list for either check-in or check-out. This allows the user the opportunity to do something else productive during the transfer process rather than being constantly interrupted when one member has been transferred and the next one must be selected. The only obvious restriction to this approach is that, because of the structure of the menus and member lists, the user can either check-in or check-out members but cannot do both actions to

different members in the same operation and the members must all be in a single SCLM library.

Because the Workstation Platform for OS/2 does not include an editor or even a shell for an editor, as SCLM does, the parsing that takes place when saving a member in SCLM does not occur until check-in.

All this talk of check-in and check-out would seem to indicate that some action must be done directly on the mainframe to create a new program or other component, compromising completely the idea of the Workstation Platform for OS/2, giving the programmer a single end-user interface. Library List option *file* suboption *new member* will, as its name implies, create a new member that will be dutifully recorded in SCLM on the mainframe, just as if it had been created using SCLM on the mainframe.

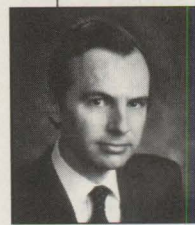
Workstation Log And APIs

The two other components of the Workstation Platform for OS/2 are the Workstation Log and Application Programming Interfaces (APIs). The Workstation Log is a

real-time event-monitoring facility, useful both for problem determination and as an audit trail of actions on SCLM members. An end-user interface is provided for the viewing and manipulation of logged events.

A Workstation Log API is provided to allow other tools to log appropriate events in the Workstation Log. The Library Services API allows other tools on the workstation to perform the same SCLM functions that the user can through the Library List end-user interface. ☐

ABOUT THE AUTHOR



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